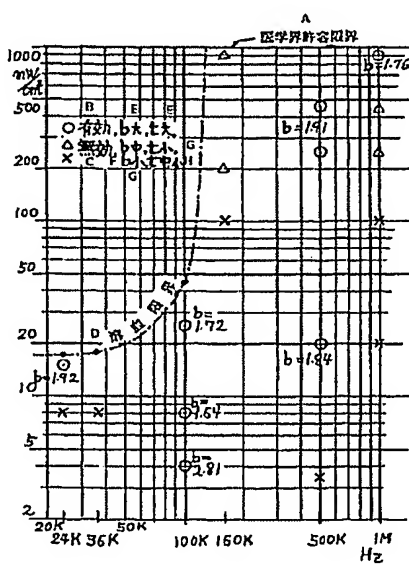


PCT

世界知的所有権機関  
国際事務局

特許協力条約に基づいて公開された国際出願



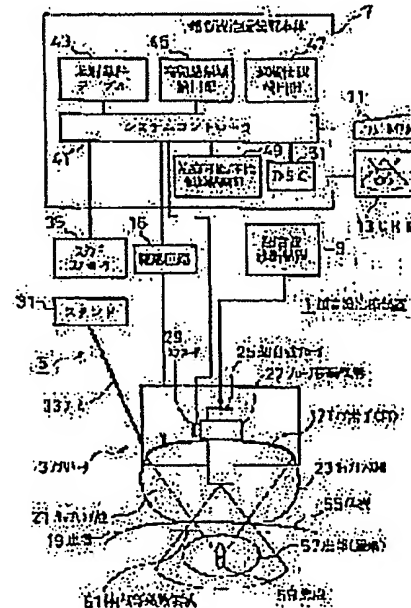
<b>(51) 国際特許分類6</b> <b>A61H 23/02</b>	<b>A1</b>	<b>(11) 国際公開番号</b> <b>WO98/53787</b>  <b>(43) 国際公開日</b> 1998年12月3日(03.12.98)
<b>(21) 国際出願番号</b> PCT/JP98/00487  <b>(22) 国際出願日</b> 1998年2月5日(05.02.98)  <b>(30) 優先権データ</b> 特願平9/188968 1997年5月26日(26.05.97) JP  <b>(71) 出願人 (米国を除くすべての指定国について)</b> 有限会社 三輪サイエンス研究所 (MIWA SCIENCE LABORATORY INC.)[JP/JP] 〒216-0033 神奈川県川崎市宮前区宮崎六丁目7番地10 Kanagawa, (JP) <b>(72) 発明者 ; および</b> <b>(75) 発明者 / 出願人 (米国についてのみ)</b> 三輪博秀(MIWA, Hirohide)[JP/JP] 〒216-0033 神奈川県川崎市宮前区宮崎六丁目7番地10 Kanagawa, (JP) 木野正人(KINO, Masato)[JP/JP] 〒158-0087 東京都世田谷区玉堤一丁目6番8号201号室 Tokyo, (JP)		<b>(81) 指定国</b> AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ARIPO特許 (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧州特許 (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI特許 (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  添付公開書類 国際調査報告書
<b>(54) Title: BODY FAT DECOMPOSER USING ULTRASONIC WAVES</b>  <b>(54) 発明の名称</b> 超音波による体脂肪分解装置  <b>(57) Abstract</b> A body fat decomposer utilizing irradiation of ultrasonic waves, wherein the irradiation condition is such that the "power density on the irradiation surface of a body at an ultrasonic frequency of 15-150 kHz is not more than 100 mw/cm <sup>2</sup> " or the "power density at an ultrasonic frequency of 200-900 kHz is not more than the permissible level in the ultrasonic medical world" on the basis of the results of experiments on the safety and fat decomposition efficiency. This fat decomposer is used for treating an obesity-caused disease, and maintaining the health and beauty. The formation of an image of and/or the temperature rise in the portion to be irradiated is estimated by measuring a physical constant of an ultrasonic pulse reflected wave, whereby the orientation of the portion to be irradiated and the dose are determined. The ultrasonic wave from an oscillator is applied to a water current or a shower, and the resultant water current is jetted to the body, whereby the irradiation is felt pleasant and carried out easily. The decomposition product FFA is burnt by setting the temperature of an acoustic transmission medium contacting the body lower than that of the body, or taking off the body heat by immersing a part of the body in the 24 °C water, to prevent the decomposition product FFA from returning to fat. A synergetic effect including the effect in maintaining a lean condition of the irradiated portion is obtained by using an acoustic coupling agent containing an obesity settling agent or irradiating the object portion with ultrasonic waves during an obesity settling agent administration period.   <b>医学界許容限界</b> A ... permissible limit in the medical world D ... effective C ... ineffective D ... hemolysis limit E ... great F ... intermediate G ... little H ... intermediate, little		

(11)Publication number : 11-155894  
(43)Date of publication of application : 15.06.1999

(21)Application number : 09-326193 (71)Applicant : TOSHIBA CORP  
(22)Date of filing : 27.11.1997 (72)Inventor : FUJIMOTO KATSUHIKO  
ETSU YASUYUKI

**PROBLEM TO BE SOLVED:** To set an irradiation condition that heat generation is restrained in a high heat generation area in an ultrasonic energy passing area in an ultrasonic medical treatment device for cauterizing a treatment object area while scanning the same by strong ultrasonic wave focused in the body.

**SOLUTION:** A high heat generation area detecting part 45 detects the positional relationship between a high heat generation area existing in an ultrasonic energy passing area and an ultrasonic focusing point, and a shield state detecting part 47 detects an energy shielding state in the ultrasonic energy passing area. A system controller 41 decides an irradiation condition (input power, irradiation time, interval) with reference to an irradiation condition table 43 according to the detected positional relationship and the shield condition, and according to the irradiation condition, a driving circuit 15 is driven to generate strong ultrasonic wave from a piezo element 17 of an applicator 3.



[Date of request for examination]  
[Date of sending the examiner's decision of rejection]  
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]  
[Date of final disposal for application]  
[Patent number]  
[Date of registration]  
[Number of appeal against examiner's decision of rejection]  
[Date of requesting appeal against examiner's decision of rejection]